

AMENDMENTS TO THE CLAIMS

Please amend the Claims as follows:

1-11. (Cancelled)

12. (Currently Amended) A device for dosing and forming disks for pods containing a product for infusion; the pods being of the type comprising a piece of filter material containing a dose of the product for infusion in the form of a disk, wherein the device comprises at least the following:

[[-]] a station for feeding the infusion product;

[[-]] a revolving drum equipped with a plurality of pistons arranged radially on a peripheral surface of the revolving drum and designed to form a disk of the infusion product and to release the disk in the filter material, each piston being able to slide along a respective axis and having a hollow head forming an impression designed to receive a dose of the infusion product fed by the feed station, the impression being moved by the revolving drum along a circular path; and

a rotational drive means acting directly on each piston and designed to continuously revolve each piston about its axis due to revolution of the drum;

wherein the rotational drive means comprises a fixed ring gear mounted inside the revolving drum and meshed with corresponding gear wheels keyed to the respective cylinder of each piston so that the pistons revolve continuously as the gear wheels engage the fixed ring gear while the pistons move round the circular path, thus tamping the disk

and preventing it from sticking inside the head of the piston while enabling the disk to be detached completely when it is deposited on the filter material

~~each piston is rotatably mounted on the revolving drum for continuously rotating about said respective axis as they move round the entire circular path.~~

13. (Cancelled)

14. (Previously Presented) The device according to claim 12, wherein, under the revolving drum, there is a station for supporting and feeding the filter material.

15. (Previously Presented) The device according to claim 12, wherein the feed station comprises a fixed hopper mounted to face the revolving drum and presenting an arc-shaped discharge portion which peripherally follows a passing surface of the revolving drum in such manner as to permit feeding of the product in a predetermined area.

16. (Previously Presented) The device according to claim 12, further comprising radial drive means acting between each piston and the revolving drum for imparting a plurality of synchronised movements to the pistons according to their angular positions on said circular path and so as to receive the product, compress the product to form the disk, detach and deposit the disk onto the filter material.

17. (Previously Presented) The device according to claim 16, wherein the radial drive means comprise cam means having at least one guide cam profile stably associated

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with the interior of the revolving drum and engaged by a cam follower roller for each piston; each cam follower roller being attached to the end of a respective connecting rod whose other end is associated with a control pin rotatably connected to the inside end of a cylindrical portion of the piston so as to drive the piston radially in both directions according to the angular position of the piston on the circular path.

18. (Previously Presented) The device according to claim 17, wherein said circular path is divided into angular sections, each single piston being movable between different positions which are determined by the cam means according to the angular section of the circular path and corresponding to:

- a first arc-shaped path section where the piston is radially retracted towards the revolving drum in such a way that the piston moves into a product dosing configuration when it reaches a point corresponding to its bottom dead centre;

- a second arc-shaped path section for dosing where the piston is initially at the bottom dead centre, in such manner as to collect as much product as possible in the head, and moves in a radial direction towards the outside of the revolving drum until it reaches the endpoint of the feed station where there is a wall for levelling off the product accommodated in the impression;

- a third arc-shaped path section for tamping the disc, where the piston moves radially towards the outside of the revolving drum and against a stop wall corresponding to its top dead centre where it remains until it starts on

- a fourth arc-shaped path section where the piston moves back up in order to facilitate detachment of the disc from the impression just before reaching the point where the disc is released.

19. (Previously Presented) The device according to claim 17, wherein the guide cam profile is divided into two arc-shaped sectors, a fixed lower section and an adjustable upper section, the adjustable upper section corresponding to a part of the path of the pistons comprising at least one area where the product is filled into the pistons.

20. (Cancelled)

21. (Previously Presented) The device according to claim 16, wherein there are arc-shaped walls round the outer surface of the revolving drum, said arc-shaped walls defining a surface opposite to the impression of the pistons in a part of the circular path in such a way as to co-operate with the pistons at least when the disk is formed and compressed.

22. (Previously Presented) The device according to claim 14, characterised in that the feed station comprises a first belt, trained around a pair of sheaves and having a perforated or porous surface; the device further comprising means for creating a vacuum at least at a working section of the first belt on which the product disk is deposited.

23. (Currently Amended) A device for dosing and forming disks for pods containing a product for infusion; the pods being of the type comprising a piece of filter material

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containing a dose of the product for infusion in the form of a disk, wherein the device comprises at least the following:

[[-]] a station for feeding the infusion product;

[[-]] a revolving drum equipped with a plurality of pistons arranged radially on a peripheral surface of the revolving drum and designed to form a disk of the infusion product and to release the disk in the filter material, each piston being slidably mounted on the revolving drum for sliding along a respective axis and having a hollow head forming an impression designed to receive a dose of the infusion product fed by the feed station; wherein there is an arc-shaped wall round the outer surface of the revolving drum, said arc-shaped wall defining a tamping surface opposite to the impression of the pistons in a part of the circular path; and

a fixed ring gear;

wherein each piston is movable along the respective axis towards said arc-shaped wall for compressing the infusion product included into the impressions against said tamping surface, and

wherein the fixed ring gear is mounted inside the revolving drum and meshed with corresponding gear wheels keyed to the respective cylinder of each piston so that the pistons revolve continuously as the gear wheels directly engage the fixed ring gear while the pistons move round the circular path due to revolution of the drum, thus tamping the disk and preventing it from sticking inside the head of the piston while enabling the disk to be detached completely when it is deposited on the filter material.

24. (Currently Amended) A device for dosing and forming disks for pods containing a product for infusion; the pods being of the type comprising a piece of filter material containing a dose of the product for infusion in the form of a disk, wherein the device comprises at least the following:

[[-]] a station for feeding the infusion product;

[[-]] a revolving drum equipped with a plurality of pistons arranged radially on a peripheral surface of the revolving drum and designed to form a disk of the infusion product and to release the disk in the filter material, each piston being able to slide along a respective axis and having a hollow head forming an impression designed to receive a dose of the infusion product fed by the feed station;

wherein each piston is rotatably mounted on the revolving drum for continuously rotating about said respective axis;

wherein rotational drive means, acting on each piston, are located on the drum and comprises a fixed ring gear mounted inside the drum and directly meshed with corresponding gear wheels keyed to a respective cylinder of each piston so that the pistons revolve continuously as they move round the circular path due to revolution of the drum.